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|-------------------------------|------------------------|---------------------|-----------|
| Notice of Allowability | Application No. | Applicant(s) | |
| | 10/020,588 | CHOW ET AL. | |
| | Examiner | Art Unit | |
| | Aditya S Bhat | 2863 | <i>AW</i> |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 30 October 2001.
2. ☒ The allowed claim(s) is/are 1-37.
3. ☒ The drawings filed on 30 October 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date <u>05 August 2002</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

Regarding claims 1, 8, 16, 23, 27 and 33:

The primary reason for the allowance of claim 1 is the inclusion of the method steps of: an aerodynamic module capable of determining at least an operating pressure associated with the expander, the aerodynamic module including an aerodynamic server component and an aerodynamic analysis component, wherein the aerodynamic server component facilitates data exchange between the aerodynamic module and at least one other module, and wherein the aerodynamic analysis component contains at least one equation useable in connection with expander flow analysis. It is this feature found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

The primary reason for the allowance of claim 8 is the inclusion of the method steps of: providing an aerodynamic module capable of determining at least an operating pressure associated with the expander, the aerodynamic module including an aerodynamic server component and an aerodynamic analysis component, wherein the aerodynamic server component facilitates data exchange between the aerodynamic module and at least one other module, and wherein the aerodynamic analysis component contains at least one equation useable in connection with expander flow analysis. It is this feature found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

The primary reason for the allowance of claim 16 is the inclusion of the method steps of: operating the second analysis module to determine a second value for a second property variable related to the flow through the expander based on the first value received from the first analysis module. It is this feature found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

The primary reason for the allowance of claim 23 is the inclusion of the method steps of: means for operating the second analysis means to determine a second value for a second property variable associated with the expander based on the first value received from the first analysis means. It is this feature found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

The primary reason for the allowance of claim 27 is the inclusion of the method steps of: a convergence summary portion having a property variable field, a first value field, and a second value field, wherein the property variable field identifies a property variable associated with a flow through the turbine, the first value field presents a value corresponding to a first determination of the property variable, and the second value field presents a value corresponding to a second determination of the property variable. It is this feature found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

The primary reason for the allowance of claim 33 is the inclusion of the method steps of: operating the first analysis module to determine a third value for the first property variable based on the second value received from the second analysis module. It is this feature found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

Claims 2-7 are allowed due to their dependency on claim 1.

Claims 9-15 are allowed due to their dependency on claim 8.

Claims 17-22 are allowed due to their dependency on claim 16.

Claims 24-26 are allowed due to their dependency on claim 23.

Claims 28-32 are allowed due to their dependency on claim 27.

Claims 34-37 are allowed due to their dependency on claim 33.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sandu et al (USPN 6,672,075) teaches a liquid cooling system for gas turbines, Hoffman et al. (USPUB 2003/0182944) teaches a highly supercharged gas turbine generating system, Iles et al. (USPN 6,658,855) teaches a system for warming pressurized gas and David teaches a gas turbine with external free piston combustor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aditya S Bhat whose telephone number is 571-272-2270. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aditya Bhat
March 1, 2004


John Barlow
Supervisory Patent Examiner
Technology Center 2800